CHAPTER I
SUMMARY OF ACTIVITIES

The SFWMD established an ambitious schedule of activities in its 2000 update of the DWMP. This schedule called for activities in each of the areas of responsibility in the years following the plan's acceptance. The SFWMD has, for the most part, adhered to the schedule of activities described in the DWMP.

The 2000 update of the DWMP described 91 major activities on which the SFWMD would be working in FY 2001. Of these, 82 are described as ongoing activities with no fixed end date. Of the remaining 10 activities, 5 have been discontinued and 6 are behind the schedule that is described in the 2000 update of the DWMP.

The tables that follow summarize the progress the SFWMD has made on the activities described in the DWMP. Unless otherwise stated, activity summaries cover the period from October 1, 2000 through September 30, 2001, along with any significant accomplishments. The tables are organized by the four areas of responsibility. The areas of responsibility are as follows:

A. Water Supply
B. Flood Protection and Flood Plain Management
C. Water Quality
D. Natural Systems Management

Programs have been described in the DWMP and in this report within the area of responsibility that is the primary function of the respective program. However, in both philosophy and practice, the SFWMD recognizes the multifunctional, multidisciplinary nature of water management in South Florida. The four areas of responsibility are highly interrelated and the complex interactions are carefully considered within each program and activity. Accordingly, activities may focus on one area of responsibility but have implications in multiple areas of responsibility.

Part A. Water Supply

The water supply portion of the DWMP addresses two core water supply objectives:

Core Objective WS 1: Increase available water supplies and maximize overall water use efficiency to meet identified existing and future needs

Core Objective WS 2: Prevent contamination of water supplies

Table 1. The FY 2001 Status of the DWMP Water Supply Activities

Activity	Status	Comments
Core Objective WS 1: Increase available water supplies and maximize overall water use efficiency to meet identified existing and future needs		
Planning		
Lower East Coast (LEC) Water Supply Plan Development and Coordination District Contact: Jim Jackson	Plan was completed in FY 2000	The *Lower East Coast Regional Water Supply Plan* (SFWMD, 2000b) is a long-range strategy for dealing with the future water supply needs of a growing population, as well as the local environment in the LEC Planning Area. The planning area consists of Palm Beach, Broward, and Miami-Dade Counties, as well as portions of Hendry, Collier, and Monroe Counties. The plan projects future water demands for urban areas and agriculture for 2020 and develops strategies to meet those demands while also meeting the needs of the environment.
Lower West Coast LWC Water Supply Plan Development and Coordination District Contact: Bonnie Kranzer	Plan was completed in FY 2000	The *Lower West Coast Water Supply Plan* (SFWMD, 2000c) is a long-range strategy for dealing with the future water supply needs of a growing population, as well as the local environment in the LWC Planning Area. The planning area consists of Lee County, most of Collier and Hendry Counties, and portions of Charlotte, Glades, and Monroe Counties. The plan projects future water demands for urban areas and agriculture for 2020 and develops strategies to meet those demands while also meeting the needs of the environment.
Caloosahatchee Water Management Plan District Contact: Akintunde Owosina	Ongoing	This activity coordinates implementation projects from the Caloosahatchee Water Management Plan (SFWMD, 2000d) approved by the Governing Board in April 2000. The projects are related to the Caloosahatchee River and Estuary, and the river's tributary basins.
Kissimmee Basin Water Supply Plan Development and Coordination District Contact: Chris Sweazy	Plan was completed in FY 2000	The *Kissimmee Basin Water Supply Plan* (SFWMD, 2000e) is a long-range strategy for dealing with the future water supply needs of a growing population, as well as the local environment in the Kissimmee Basin Planning Area. The planning area consists of portions of Orange, Osceola, Polk, Highlands, Glades, and Okeechobee Counties. The plan projects future water demands for urban areas and agriculture for 2020 and develops strategies to meet these demands while also meeting the needs of the environment.
Northern Palm Beach County Comprehensive Water Resources Management Plan District Contact: Patricia Walker	Draft of final document under review	This subregional plan focuses on the southern L-8 basin, the city of West Palm Beach Water Catchment Area/water supply lake system, and the C-18 basin, which includes the Loxahatchee Slough and the Loxahatchee River, especially the Northwest Fork. The plan projects future water demands for environmental, agricultural, and urban for 2020 and identifies projects that, if built, will bring supplemental water into the area.
Upper East Coast (UEC) Water Supply Plan Development and Coordination District Contact: Sharon Fowler	On schedule	The first water supply plan for the UEC was completed in 1998 (SFWMD, 1998). It is scheduled to be updated in 2004. The update of the UEC Water Supply Plan is incorporating regional water supply plans for Martin and St. Lucie Counties and eastern Okeechobee County. The plan will project future water demands for at least a 20-year planning horizon for urban areas and agriculture, and will develop strategies to meet these demands while meeting the needs of the environment. The plan's strategies and recommendations will incorporate both regional responsibilities (water resource development) and local responsibilities (water supply development), as well as identify potential funding sources.

Activity	Status	Comments
Public Works Construction		
Ten Mile Creek Critical Project District Contact: Denise Arrieta	Revised schedule	Land acquisition for the Ten Mile Creek Critical Project has been completed. Construction is scheduled to begin in FY 2002 and be completed in FY 2004.
Western Hillsboro (Site 1) Aquifer Storage and Recovery (ASR) Pilot Project District Contact: Rick Nevulis	Revised schedule	Since completion of the project management plan in March 2001, the water quality characterization of the source water has been out sourced and initiated. This task is on the critical path to meet the next milestone, ASR system design, targeted for completion in FY 2003.
L-31N Seepage Management Pilot Project District Contact: Art Sengupta	Behind schedule	The draft project management plan, which includes the project budget, schedule, and lead responsibilities for project tasks, is under internal review, with final approval expected during FY 2002. The SFWMD's Governing Board approved early work on a data collection contract during FY 2001.
Caloosahatchee ASR Pilot Project District Contact: Robert Verrastro	Revised schedule	The draft project management plan was completed. Plan approval is scheduled for FY 2002.
Water Conservation Area (WCA)-3A and WCA-3B Seepage Management District Contact: Max Day	On schedule - not yet started	This is part of the Western Broward Impoundment Water Preserve Area Project. It is scheduled to begin in FY 2002.
Broward County Secondary Canal System District Contact: Susan Ray	On schedule - not yet started	This project is scheduled to begin in FY 2002.
C-23 and C-24 Basins Water Preserve Area District Contact: David Unsell	On schedule - not yet started	This is part of the Indian River Lagoon Project. It is scheduled to begin in FY 2002.
Lake Belt Technology Pilot Project District Contact: Paul Linton	Behind schedule	A contract for early data collection was solicited during FY 2001. Scheduling, costing, and resource allocation are in progress and the project management plan is scheduled to be completed in FY 2002.
Southern L-8 In-Ground Reservoir District Contact: Michael Voich	On schedule	This is part of the North Palm Beach County - Part 1 Project. Work is in progress to complete the project management plan in FY 2002. Approval was granted to move forward with work on the L-8 test reservoir prior to approval of the project management plan in order to capture and store water for the upcoming dry season and to gather data necessary for the project implementation report.
Flows From WCA-3 to the Central Lake Belt Area	On schedule - not yet started	This is part of the Diverting WCAs Flows to Central Lake Belt Storage to Downstream Natural Areas Project. It is scheduled to begin in FY 2009.
Flows From Central Lake Belt Storage Area to WCA-3B	On schedule - not yet started	This is part of the Diverting WCAs Flows to Central Lake Belt Storage to Downstream Natural Areas Project. It is scheduled to begin in FY 2009.
Eastern Hillsboro ASR Project District Contact: Pete Kwiatkowski	On a revised schedule	This project includes the installation of one 5.0-million gallons per day (mgd) ASR well, one upper Floridan aquifer monitoring well, five surficial aquifer supply wells, and raw water piping to convey water from the surficial wells to the ASR well.
LEC Water Supply Development Implementation District Contact: Jim Jackson	Ongoing	The *Lower East Coast Regional Water Supply Plan* (SFWMD, 2000b) will be implemented by 1) using regional and local water supply planning efforts to predict when alternative sources will be needed and to provide guidance as to which source may be most appropriate for meeting the particular needs of each user; 2) conducting appropriate hydrologic and ecological studies to identify the freshwater input needs of the Lake Worth Lagoon; and 3) encouraging the use of any permittable alternative water supply option which would achieve a reduction in saltwater intrusion.
Miami-Dade County ASR District Contact: Pete Kwiatkowski	On a revised schedule; to be carried out in FY 2003 - FY 2005	The Miami-Dade County ASR Project will use excess wellfield capacity available from existing wellfields in the surficial aquifer during the wet season to provide water for storage in the Upper Floridan Aquifer System. This water will later be recovered during the dry season to reduce the demands of the utility wellfields on the surficial aquifer.

Activity	Status	Comments
Capital Program District Contact: Vince Loehrlein and Zan Kuglar	Ongoing	The Capital Program includes capital improvements, modifications, or repairs to District water control and conveyance facilities. The S-7 and S-8 Projects were carried over due to the size of the project. An engineering consulting firm was needed to evaluate the specifications for the contract.
Kissimmee Basin Water Resource Development Implementation District Contact: Chris Sweazy	Ongoing	This activity is for the implementation of the regional water resource development projects recommended in the *Kissimmee Basin Water Supply Plan* (SFWMD, 2000e). Among the projects being completed under this activity are: reclaimed injection pilot project, aquifer recharge enhancement project, development of a management plan for the Lake Istokpoga/Indian Prairie Basin, and numerous hydrologic, geologic, and ground water modeling studies
LWC Water Resource Development Implementation District Contact: Bonnie Kranzer	Ongoing	This activity is for the implementation of regional water resource development projects recommended in the *Lower West Coast Water Supply Plan* (SFWMD, 2000c).
UEC Water Resource Development Implementation District Contact: Sharon Fowler	Ongoing	This activity is for the implementation of regional water resource development projects recommended in the *Upper East Coast Water Supply Plan* (SFWMD, 1998).
Comprehensive Everglades Restoration Plan (CERP) Reserves District Contact: Steve Reel	Ongoing	This activity is for the management of the cash reserves for the implementation of the CERP.
Operations and Maintenance		
Lake Istokpoga Regulation Schedule District Contact: Lewis Hornung	On schedule - not yet started	This project is scheduled to begin in FY 2002.
Structure Operations District Contact: Tommy Strowd	Ongoing	Structure operations include the movement of water, pumping operations activities, and automation for the Central and Southern Florida (C&SF) Project canal system.
Water Control Structure Maintenance District Contact: Lindell Williams	Ongoing	This activity is for water control structure maintenance, including District pump stations, structures, project culverts, and special construction projects as determined.
Canal/Levee Maintenance District Contact: Lindell Williams	Ongoing	This activity is for the maintenance of canals and levees, including replacement of project culverts, bank stabilization, revegetation, mowing, tree removal, and shoal removal.
Equipment Maintenance District Contact: John Adams	Ongoing	Equipment maintenance consists of preventive and cyclic maintenance and restoration of a variety of equipment.
Electronics, Communications, and Control Device District Contact: Nancy Little	Ongoing	District communication, electronics, and control devices must be developed, installed, supported, and maintained. These include supervisory control and data acquisition (SCADA) system devices, microwave system devices, and District radio communication components.
Exotic Plant Control District Contact: Dan Thayer	Ongoing	Invasive exotic aquatic and terrestrial vegetation within District canals, canal banks, lakes, rights-of-way, and preserve lands must be controlled. This control is accomplished through in-house and contracted herbicidal, mechanical, and biological control methods. This program works primarily to ensure conveyance capacity within canals and water bodies.
General Maintenance District Contact: Albert Basulto	Ongoing	This activity provides preventative maintenance and repairs to District fixed and mobile equipment to ensure operation of the District water control system and provides maintenance and repairs to District field facilities.

Activity	Status	Comments
Central and Southern Florida (C&SF) Project Operational Planning District Contact: Luis Cadavid	Ongoing	This activity includes, but is not limited to, (a) regional modeling support for the District and the United States Army Corp of Engineers (USACE) to develop and implement short-term and/or routine operational procedures (e.g., implementation of the Water Supply and Environment [WSE] schedule for Lake Okeechobee); (b) development of rain-driven operating rules recommended for the Everglades by the *Lower East Coast Regional Water Supply Plan* and the CERP; (c) development of operational modifications recommended in *the Lower East Coast Regional Water Supply Plan* (SFWMD, 2000b) (e.g., supply-side management modifications, rain-driven operations); and (d) development of operational plans for components of the *Lower East Coast Regional Water Supply Plan* and the CERP.
Regulation		
Water Use Permitting District Contact: Scott Burns	Ongoing	This program involves the review of water use permit applications. The objective is to ensure safe, efficient, equitable, and reliable development of the state's water resources. The major components are 1) review and prepare recommendations for permit applications for all consumptive uses of water within the District boundaries, 2) provide postpermit compliance checks on priority projects based on staffing resources, and 3) review and issue well construction permits for specific water wells within the District boundaries. Water use permitting also includes permit planning, permit issuance, dispute resolution, mitigation support, technical support for enforcement, communication with the water supply planning activities of this agency, and criteria and rule development.
Revise Consumptive Use Permitting (CUP) Rules District Contact: Debra Goss	Ongoing	The last time District water use rules were substantially modified was in 1993, when the water conservation rules were updated. Since that time, numerous changes in legislation, District policy, and the development of the regional water supply planning process have caused District staff to reexamine the agency's water use rules. Some of the proposed changes will consist of administrative updates, while others involve technical criteria changes that relate to the implementation objectives of the District's regional water supply plans.
Outreach		
Hillsboro (East) ASR Pilot District Contact: Pete Kwiatkowski	Nearing completion	A pilot regional ASR project will be located west of U.S. 441 along the Hillsboro Canal, through cooperation with Palm Beach County. This project is associated with the development of a new wellfield to serve Palm Beach County's Water Treatment Plant Number 9.
LEC Water Supply Development Implementation District Contact: Jim Jackson	Ongoing	The *Lower East Coast Regional Water Supply Plan* (SFWMD, 2000b) will be implemented by 1) using regional and local water supply planning efforts to predict when alternative sources will be needed, and to provide guidance as to which source may be most appropriate for meeting the particular needs of each user; 2) conducting appropriate hydrologic and ecological studies to identify the freshwater input needs of the Lake Worth Lagoon; and 3) encouraging the use of any permittable alternative water supply option which would achieve a reduction in saltwater intrusion.
Miami-Dade County ASR District Contact: Pete Kwiatwkowski	On a revised schedule; to be carried out in FY 2003 - FY 2005	The Miami-Dade County ASR uses excess wellfield capacity available from existing wellfields in the Surficial Aquifer System during the wet season to provide water for storage in the Upper Floridan Aquifer System. This water will then be subsequently recovered to reduce the demands of the utility wellfields on the surficial aquifer during the dry season.
LWC Water Supply Development Implementation District Contact: Bonnie Kranzer	Ongoing	This activity will evaluate LWC alternative water supply sources, or combination of alternatives, with local water users to find the combination that best suits local requirements and conditions.
Alternate Water Supply (AWS) Cooperative Projects District Contact: Jane Bucca	Ongoing	AWS Cooperative Projects annually provide for the following: the receipt of AWS project applications; the review, ranking, and Governing Board approval of the proposed contract awards; execution of the contractual agreements; and the development of annual reports to the Florida Legislature. This program was significantly cut back in FY 2001 to provide funding for the CERP.
Water Conservation District Contact: Michelle Pearcy	On a revised schedule	The District's water conservation efforts, also called demand management, refers to water use practices and technologies that provide the services desired by the users while using less water. The District's Demand Management Program incorporates water supply planning, regulation, and supplemental measures in order to cultivate a conservation ethic in cooperation with water users.

Activity	Status	Comments
Monitoring and Evaluation		
Hydrologic Modeling and Analysis - Water Resource Development District Contact: Dave Swift	Ongoing	Regional and subregional modeling to support the implementation of recommendations from *the Lower East Coast Regional Water Supply Plan* (SFWMD, 2000b) and their associated regulatory/rulemaking activities. These regulatory/rulemaking activities include reservations of water for natural systems and minimum flows and levels (MFLs). Efforts will also include preregulatory modeling for water users.
Hydrologic Management - Hydrologic Studies District Contact: John Lukasiewicz	Ongoing	This activity provides fundamental hydrogeologic support across many programs including 1) the development and maintenance of a well inventory, 2) lithologic application to store hydrogeologic information collected by the District, and 3) the United States Geological Survey (USGS) Cooperative Agreement Program. The USGS Cooperative Agreement Program is jointly funded and includes 12 hydrogeologic water resources investigations which support implementation of the recommendations made in *the Lower East Coast Regional Water Supply Plan* (SFWMD, 2000b).
Water Supply Program Controls District Contact: Matt Morrison	Discontinued	Initial attempts to capture large amounts of project information on a universal basis were not successful, and Dz03 was essentially rolled into the activities that it was designed to support. Quarterly reporting of the status of each water supply plan recommendation is proposed for FY 2002, and this activity will be included with other water supply planning support functions.
Core Objective WS 2: Prevent contamination of water supplies		
Regulation		
Water Use, Application, Compliance, and Criteria Development District Contact: Scott Burns	Ongoing	Water use permitting (consumptive use permitting) is a state mandated program assigned exclusively to the water management districts. The objective is to ensure safe, efficient, equitable, and reliable development of the state's water resources. The major components are 1) review and prepare recommendations for permit applications for all consumptive uses of water within the District boundaries; 2) provide postpermit compliance checks on priority projects based on staffing resources (approximately 300 projects per year); 3) review and issue well construction permits for specific water wells within District boundaries; and 4) perform water conservation rulemaking analysis and make recommendations. This activity also includes prepermit planning, permit issuance, dispute resolution, litigation support, technical support, enforcement, communication with water supply planning activities of this agency, and criteria and rule development.
Outreach		
Local Plan Review District Contact: P.K. Sharma	Ongoing	Local government comprehensive plans and amendments, and water control plans of drainage districts are reviewed by the District as required by Chapters 163 and 298, F.S. This review activity was significantly cut back during FY 2001 to provide funding for the CERP.
Local Liaison	Ongoing	Liaison with local county and city governments and agencies, including Chapter 298 Districts.
Water Shortage Management District Contact: Bruce Adams	Ongoing	On November 29, 2000, the Governing Board declared a major water shortage due to the extended drought. Phase I emergency water shortage orders were issued for the LWC area on this date and on December 8, 2000 for the LEC area. On January 19, 2001, these Phase I restrictions were upgraded to Phase II severe water shortage restrictions. Because of continued drought conditions, on March 28, 2001, the District initiated modified Phase II emergency water shortage restrictions applicable to the LWC and LEC Areas. The drought conditions also affected inland agricultural areas and various water use restrictions were ordered in those areas. Because of favorable water resource conditions, water shortage orders were rescinded on October 11, 2001, for all areas of the District, except for certain portions of Orange County.

Activity	Status	Comments
Wellhead Protection Programs	As needed	The FDEP has a number of regulations under the Florida Administrative Code that function to regulate hazardous and solid waste, stormwater discharges, storage tank systems, etc. The primary goal of these legislative policies is to prevent problems before they occur, as contrasted to correcting or providing remedial action for preexisting problems. The intent of these ordinances is to protect and safeguard the health, safety, and welfare of the public by providing criteria for regulating and prohibiting the use, handling, production, and storage of certain deleterious substances that may impair present and future public water supply wells and wellfields. The District has and will continue to provide assistance to local governments in the preparation of their wellfield protection ordinances. No wellhead protection activity has occurred since the last update of the DWMP.
Recharge Mapping	As needed	As directed by Chapter 373, F.S., the SFWMD provides ground water recharge information to local governments to assist them with the development and implementation of appropriate water resource policies. In order to accomplish this, the SFWMD undertook a project to map recharge areas within its four planning regions. This effort was completed in 1995. The maps delineate precipitation recharge and leakage rates for all the primary public water supply aquifers utilized throughout South Florida. The District has and will provide assistance to local governments in the delineation of prime recharge areas in order to implement voluntary tax assessment programs (under the Bluebelt Act) that protect the state's prime recharge areas. No recharge mapping was performed since the last update of the DWMP.
Monitoring and Evaluation		
Wetland Criteria Development and Support District Contact: Debbie Goss	Ongoing	This activity supports the Regulation Program in developing a scientific basis for wetland protection criteria used in water use and environmental resource permitting. The activity was originated at the direction of the Governing Board and Executive Office to develop a research and monitoring program to investigate impacts to wetlands caused by water table drawdown and to develop specific recommendations for drawdown criteria that prevent significant adverse impacts. This information is needed to support rulemaking for the LWC and UEC planning regions and is a critical element in the implementation of the water supply plans for both regions.

Part B. Flood Protection and Floodplain Management

Historically, flood protection has been at the core of the District's activities. The SFWMD was originally established in 1949 as the Central and Southern Florida Flood Control District. The Flood Protection and Floodplain Management portion of the DWMP is divided into two core objectives:

Core Objective FP 1: Minimize damage from flooding

Core Objective FP 2: Promote nonstructural approaches to achieve flood protection, and to protect and restore the natural features and functions of the 100-year floodplain

Table 2. The FY 2001 Status of the DWMP Flood Protection and Floodplain Management Activities

Activity	Status	Comments
Core Objective FP 1: Minimize damage from flooding		
Planning		
Big Cypress Basin Watershed Project (Big Cypress Watershed Management Plan) District Contact: Ananta Nath	Ongoing	The Big Cypress Basin Watershed Management Plan includes development of a set of calibrated hydrologic-hydraulic models and ecologic assessment of an approximately 1,200-square mile area of western Collier watershed and incorporation of engineering, economic, and environmental analyses of alternative water management strategies to formulate continuing plans and road maps for capital projects in the Big Cypress Basin.
South Lee County Watershed Plan District Contact: Akintunde Owosina	Ongoing	Severe flooding in 1995 raised the issue of water flows in southern Lee County. The South Lee County Watershed Plan addresses this issue. The work in this project will involve three phases. During Phase I, the necessary background data will be obtained and hydrologic and hydraulic models of the study area will be developed. During Phase II, the ecological value of the study area will be assessed and the target hydrologic parameters for restored conditions will be identified. During Phase III, models will be applied to evaluate the performance of existing water management facilities in the study area, existing problems will be identified, and alternative facilities and systems will be developed and assessed.
Public Works Construction		
Capital Program District Contact: Vince Loehrlein and Zan Kugler	Ongoing	The Capital Program includes capital improvements, modifications, or repairs to District water control and conveyance facilities. The S-7 and S-8 Projects were carried over due to the size of the project. An engineering consulting firm was needed and recommended to evaluate the specifications for the contract.
Modified Water Delivery Project District Contact: Dave Swift	On schedule	The Modified Water Deliveries Project is designed to restore the hydrologic balance between western Shark River Slough and northeastern Shark River Slough, to benefit Everglades National Park flora and fauna. The detail design of the recommended plan has been initiated.
C-111 Project Implementation District Contact: Lisa Smith	On schedule	The C-111 Project consists of both structural and nonstructural modifications to the existing works within the C-111 Basin to promote more natural hydroperiods in Taylor Slough and the eastern panhandle ecosystems of Everglades National Park. Flood protection within the C-111 Basin east of the L-31N and C-111 canals will be maintained. In FY 2001, 90% of the land acquisition was completed and the general reevaluation report supplement is under development.
Kissimmee River Restoration Engineering Design and Implementation District contact: Paul Whalen	Ongoing	This activity supports the District's participation with the USACE in the analysis and design of project construction elements for meeting flood protection constraints and ecosystem restoration goals for the Kissimmee River Restoration Project. This project should be completed in 2011.

Activity	Status	Comments
Operations and Maintenance		
Structure Operations District Contact: Tommy Strowd	Ongoing	Structure operations include the movement of water, pumping operations activities, and automation for the C&SF Project canal system.
Water Control Structure Maintenance District Contact: Lindell Williams	Ongoing	Water control structure maintenance includes District pump stations, structures, project culverts, and special construction projects.
Canal/Levee Maintenance District Contact: Lindell Williams	Ongoing	Canals and levees must be maintained. Maintenance includes replacement of project culverts, bank stabilization, revegetation, mowing, tree removal, and shoal removal.
Equipment Maintenance District Contact: John Adams	Ongoing	Equipment maintenance consists of preventive and cyclic maintenance and restoration of a variety of equipment for the regional flood control systems.
Electronics, Communications, and Control Devices District Contact: Nancy Little	Ongoing	District communication, electronics, and control devices must be developed, installed, supported, and maintained. These include SCADA system devices, microwave system devices, and District radio communication components.
Exotic Plant Control District Contact: Dan Thayer	Ongoing	Invasive exotic aquatic and terrestrial vegetation within District canals, canal banks, lakes, rights-of-way, and preserve lands must be controlled. This control is accomplished through in-house and contracted herbicidal, mechanical, and biological control methods. This program works primarily to ensure conveyance capacity within canals and water bodies.
Right-of-Way Management District Contact: Tom Fratz	Ongoing	Right-of-Way Management involves the management of uses of District rights-of-way by means of permitting and enforcement initiatives designed to minimize outside impacts on the District's ability to operate and maintain the canal and levee system.
Emergency Management District Contact: Olivia McLean	As needed	The mission of the District's Emergency Management Program is to prevent or minimize, prepare for, respond to, and recover from emergencies or disasters that threaten life or property within the boundaries of the District. These activities ensure that the District can accomplish its mission during adverse conditions. The District also works closely with, and offers support to, local and state emergency managers to prepare for and assist with man-made hazards, dam failures, nuclear power plant failures, fires, storms, and a number of other types of emergencies within Florida.
Regulation		
Environmental Resource Permitting (ERP) District Contact: Terrie Bates	Ongoing	This ongoing activity involves the review of environmental resource permit applications. It includes the following: • Technical engineering and environmental review and evaluation of construction and conceptual plans for proposed development activities • Recommendations for project design changes to ensure proposed activities meet District criteria for flood, water quality, and environmental protection • Negotiations with permit applicants • Field inspections of project sites requesting permits or wetland determinations • Review of wetland mitigation plans • Preparation of requests for additional information • Preparation of technical staff reports • Compliance review of permitted sites • Compliance review of submitted documents required by permit special conditions • Administrative and automation support critical to the ERP Program
Outreach		
Local Plan Review District Contact: P.K. Sharma	Ongoing	Local government comprehensive plans and amendments, and water control plans of drainage districts are reviewed by the District as required by Chapters 163 and 298, F.S. This review activity was significantly cut back during FY 2001 to provide funding for the CERP.

Activity	Status	Comments
Monitoring and Evaluation		
Flood Control Level of Service	Discontinued	Funding was not available for this activity.
Basin Flood Studies District Contact: Ken Konyha	Ongoing	This activity consists of basin flood studies in the C-17 and C-51 Basins. The C-17 Basin Study will investigate increasing flood mitigation and conveyance capacity of the C-17 Canal and the S-44 Structure without adversely affecting the receiving water body (Lake Worth Lagoon). The C-51 Basin Study will reevaluate the C-51 Basin Rule (surface water management permitting criteria). The C-11 and C-4 Basins are also being studied. The C-4 forward pumping station has been constructed and will be operational for the 2002 wet season.
Core Objective FP 2: Promote nonstructural approaches to achieve flood protection, and to protect and restore the natural features and functions of the 100-year floodplain		
Land Acquisition		
Stewardship Save Our River (SOR) Lands	Ongoing	SOR stewardship activities include planning and implementing a stewardship work plan, administering a land acquisition plan, administering a public use rule, and administering mitigation banks/projects.
General Land Acquisition	Ongoing	This activity involves the acquisition of lands in support of District programs for water management, water supply, and the conservation and protection of water resources.
Regulation		
Environmental Resource Permitting (ERP) District Contact: Terrie Bates	Ongoing	This ongoing activity involves the review of environmental resource permit applications. It includes the following: • Technical engineering and environmental review and evaluation of construction and conceptual plans for proposed development activities • Recommendations for project design changes to ensure proposed activities meet District criteria for flood, water quality, and environmental protection • Negotiations with permit applicants • Field inspections of project sites requesting permits or wetland determinations • Review of wetland mitigation plans • Preparation of requests for additional information • Preparation of technical staff reports • Compliance review of permitted sites • Compliance review of submitted documents required by permit special conditions • Administrative and automation support critical to the ERP Program

Part C. Water Quality

The water quality section of the DWMP addresses efforts to ensure that water quality standards are met throughout the SFWMD. The DWMP utilizes two core water quality objectives:

Core Objective WQ 1: Protect and improve surface water quality

Core Objective WQ 2: Protect and improve ground water quality

Table 3. The FY 2001 Status of the DWMP Water Quality Activities

Activity	Status	Comments
Core Objective WQ 1: Protect and improve surface water quality		
Planning		
Kissimmee Basin Plan Development	Discontinued	This activity was eliminated due to budget constraints.
Florida Bay Feasibility Study District Contact: Dewey Worth	Revised schedule	The Florida Bay and Florida Keys Feasibility Study will determine the types of modifications that are needed to successfully restore and protect the water quality and ecological conditions of the Florida Bay and the Florida Keys' reef tract. The study will evaluate the quantity, timing, distribution, and quality of fresh water that should flow to Florida Bay and provide recommendations for any modification of water deliveries that are expected as a result of the implementation of Everglades restoration programs. The draft project management plan was completed in 2001 and a public/stakeholder workshop has been conducted. The project management plan will be completed in FY 2002
Comprehensive Integrated Water Quality Plan	Not a District project	The Comprehensive Integrated Water Quality Plan is being developed and implemented by the FDEP, not the District.
Florida Keys Water Quality Plan District Contact: Rhonda Haag	Ongoing	The strategies identified in the Florida Keys Water QualIty Plan focus on eliminating water quality problems that are related to land-based activities in the Florida Keys. These problems may be caused by inadequate or nonexistent treatment of storm water runoff and wastewater. The plan builds upon several other plans, notably the Water Quality Protection Program and the Management Plan for the Florida Keys National Marine Sanctuary, and focuses on restoration strategies and projects that could be initiated or assisted by the District.
Indian River Lagoon Surface Water Improvement and Management (SWIM) Plan Documentation District Contact: Pat Gostel	Ongoing	This activity involves an update of the *Indian River Lagoon Surface Water Improvement and Management Plan* (SFWMD and SJRWMD, 1994). The Indian River Lagoon SWIM Project, a joint program administered with the St. Johns River Water Management District (SJRWMD), is designed to develop and execute a combination of research and practical implementation projects to protect or restore the environmental resources of the St. Lucie Estuary and the Indian River Lagoon. This update is currently under development with the SJRWMD. The draft is scheduled to be submitted to the SFWMD Governing Board in June 2002.
Lake Okeechobee SWIM Plan Implementation District Contact: Kim O'Dell	Ongoing	This activity includes work required to ensure that the *Surface Water Improvement and Management (SWIM) Plan – Update for Lake Okeechobee* (SFWMD, 1997) is being implemented as intended. The next draft will be distributed in 2002.
Public Works Construction		
Lake Okeechobee Water Retention/ Phosphorus Removal District Contact: Jose Otero	Revised schedule	Contracts for the plans and specifications for the two stormwater treatment areas (STAs) were initiated. Plans and specifications will be complete in FY 2002. Construction is scheduled to begin in FY 2003 and be completed in FY 2005. The other portion of this project includes the purchase of conservation easements within four priority basins of Lake Okeechobee to increase water storage and improve water quality by restoring the hydrology of isolated wetlands and constructing detention areas. The isolated wetlands are scheduled for completion in FY 2003.

Activity	Status	Comments
Western C-11 (S-9) Water Quality Treatment Project District Contact: Susan Ray	On schedule	Water quality certification was obtained in July 2001. Plans and specifications for Phase 2 were completed in July 2001. Construction for Phase 2 is scheduled to begin in FY 2002 and be completed in FY 2003. Construction for Phase 1 is under way and scheduled for completion in FY 2002.
Lake Okeechobee Tributary Sediment Dredging District Contact: Lewis Hornung	On schedule	This is part of the Lake Okeechobee Watershed Project. The project management plan was completed in July 2001. A watershed assessment will be a first step in the project implementation report. The solicitation for design of the monitoring system is in progress and a contract is expected to be awarded in FY 2002.
Everglades Construction Project (ECP) District Contact: Gary Goforth	On schedule	The District and the FDEP have set in motion a program that forms a comprehensive and consistent set of strategies to carry out the requirements of the Everglades Forever Act.
Pineland and Hardwood Hammock Restoration (C-111 Basin)	Discontinued	This is not a District project. Miami-Dade County is the local sponsor of this CERP project.
Taylor Creek/Nubbin Slough Reservoir and STA District Contact: Lewis Hornung	On schedule	This is part of the Lake Okeechobee Watershed Project. The project management plan was completed in July 2001. A watershed assessment will be a first step in the project implementation report. The solicitation for design of the monitoring system is in progress and a contract is expected to be awarded in FY 2002.
Operations and Maintenance		
Operations and Maintenance of ECP District Contact: Gary Goforth	Ongoing	The operations and maintenance of the ECP is mandated by the Everglades Forever Act. This includes costs associated with the operations and maintenance of canals, levees, pipes, culverts, pump stations, and monitoring test cells within the ECP.
Regulation		
Everglades Works of the District Permitting District Contact: Sharon Trost	Ongoing	The Federal Settlement Agreement and the Everglades Forever Act mandate the implementation of the Everglades Best Management Practice (BMP) Program for the Everglades Agricultural Area (EAA) to control phosphorus. In addition, the Everglades Forever Act mandates additional regulatory programs to include other water quality parameters and to include additional basins. The implemention of BMPs through this program has resulted in a 73% reduction in phosphorus loads in 2001. The 3-year rolling average indicates a 57% reduction in phosphorus loads.
Everglades Storm Water Program District Contact: Sharon Trost	Ongoing	The Everglades Storm Water Program (formerly known as the Non-ECP Initiative) was mandated by the Everglades Forever Act. The purpose of this program is to ensure that water quality standards are met at all structures that the District controls that pump water into, through, or from the Everglades Protection Area. This will be achieved through implementing the Non-ECP Permit, a combination of regulatory analysis, water quality monitoring, water quality improvement strategies, and solutions such as BMPs, or construction projects. Other components of the program include an education campaign, and developing a method for reimbursement of expenditures through a special assessment.
Monitoring and Evaluation		
Lake Okeechobee Works of the District Permitting District Contact: Gary Ritter	Ongoing	The purpose of this activity is to inventory and permit all nondairy land uses in the priority basins of the northern Lake Okeechobee watershed. High phosphorus areas will be identified through water quality surveys, monitoring will be performed to ensure compliance with SWIM phosphorus discharge concentration limits, and corrective actions will be required on parcels that are out of compliance.
Kissimmee Basin Data Collection and Evaluation District Contact: Joe Koebel	On schedule	The 2000 Lake Okeechobee Bill requires an assessment of the sources of phosphorus from the Upper Kissimmee Chain of Lakes and their relative contribution to the water quality of Lake Okeechobee. In addition, data evaluation and assessment efforts need to be conducted to meet the total maximum daily load (TMDL) and MFL requirements.
ECP Research and Data Collection District Contact: Jennifer Jorge	Ongoing	This activity represents the ongoing research and data collection efforts on behalf of the ECP. The Everglades Forever Act and Federal Everglades Settlement Agreement, as well as permits and other legislation mandates require the District to conduct research, monitoring, and modeling activities.

Activity	Status	Comments
Everglades BMP Effectiveness Research District Contact: Yongshan Wan	Ongoing	BMP research provides information on how to efficiently control pollutant releases from agricultural and other developed areas. The particular focus of this activity is on the prevention of phosphorus releases. Projects include research on understanding phosphorus releases from the EAA soils to optimize fertilizer application rates, development of a baseline of water quality data for the C-139 Basin, evaluation of pesticide releases and toxicity, and evaluation of mercury releases and bioaccumulation. This activity also developed a chapter on BMPs for the *2001 Everglades Consolidated Report* (SFWMD, 2001a), as required by statute.
404 Permit Research, Monitoring, and Modeling – Receiving Waters District Contact: Steve Smith	Ongoing	This activity assesses impacts of effluents from STAs on water quality (nutrients and toxins), soils, periphyton, and macrophytes. Predischarge (baseline) monitoring is complete. Postdischarge monitoring has been initiated. Research on hydrologic/nutrient effects on vegetation and soils is continuing.
Water Quality Monitoring – Florida Bay District Contact: Dave Rudnick	Ongoing	This activity supports monitoring of water quality throughout the Florida Bay region and monitoring of sea grass community in northeastern Florida Bay, Manatee Bay, and Barnes Sound. Impacts of changing freshwater flow and releases from the C-111 Canal are being assessed.
St. Lucie Estuary/Indian River Lagoon District Contact: Patti Sime	Ongoing	This activity consists of monitoring, research, and implementation projects in support of the Indian River Lagoon SWIM Plan and Indian River Lagoon Restoration Feasibility Study. The Indian River Lagoon Restoration Feasibility Study Plan is being completed for submission to the United States Congress in October 2002 for authorization and appropriation under the Water Resources Development Act (WRDA). Monitoring, research, and implementation activities continue with ad valorem and St. Lucie River Issue Team funding.
Lake Okeechobee Research and Data Collection District Contact: Karl Havens	Ongoing	This element includes the research- and monitoring-related activities being conducted in Lake Okeechobee and its watershed. This information is then fed to the planning and implementation projects to ensure that the District's restoration-related activities are based on sound and defensible science. The key activities include in-lake research devoted toward determining the impacts of water level, nutrients, and invasive plants; watershed research dealing with the fate and transport of phosphorus; modeling activities associated with the impacts of phosphorus in the watershed and the lake; BMPs associated with beef cattle operations; and monitoring activities to assess the effectiveness of the District's restoration efforts.
Water Quality Monitoring District Contact: Maxine Cheesman	Ongoing	The Water Quality Monitoring Program generates high quality chemical and physical data for assessing the status of South Florida's water resources, utilizing standardardized sampling and analytical procedures. The activities under this element provide data for evaluating water quality conditions and trends, assessing permit compliance and support other District programs. Data reporting provides summaries and written reports on water quality and hydologic conditions for planning and operaions, as well as to meet permit and legally mandated requirements.
Lower West Coast Water Quality Monitoring District District Contact: Cecilia Weaver	Ongoing	This activity encompasses water quality monitoring for LWC estuaries from Cape Romano to the Caloosahatchee River (Florida International University) and the inland water quality monitoring for the Big Cypress Basin (Collier County).
Core Objective WQ 2: Protect and improve ground water quality		
	Planning	
Water Preserve Area Feasibility Study District Contact: Max Day	Behind schedule	The water preserve areas are intended to provide regional storage to assist in meeting the future water supply needs of all types of users - agricultural, urban, and environmental. The Water Preserve Area Feasibility Study investigated and further developed conceptual designs developed under the C&SF Project Comprehensive Review Study (Restudy). The feasibility report will be completed in time to include in the proposed WRDA 2002 as originally planned.

Activity	Status	Comments
		Regulation
Water Use, Application, Compliance, and Criteria Development District Contact: Scott Burns	Ongoing	Water use permitting (consumptive use permitting) is a state mandated program assigned exclusively to the water management districts. The objective is to ensure safe, efficient, equitable, and reliable development of the state's water resources. The major components are 1) review and prepare recommendations for permit applications for all consumptive uses of water within the District boundaries; 2) provide postpermit compliance checks on priority projects based on staffing resources (approximately 300 projects per year); 3) review and issue well construction permits for specific water wells within District boundaries; and 4) perform water conservation rulemaking analysis and make recommendations. This activity also includes prepermit planning, permit issuance, dispute resolution, litigation support, technical support, enforcement, communication with water supply planning activities of this agency, and criteria and rule development.
		Outreach
Local Plan Review District Contact: P.K. Sharma	Ongoing	Local government comprehensive plans and amendments, and water control plans of drainage districts are reviewed by the District as required by Chapters 163 and 298, F.S. This review activity was significantly cut back during FY 2001 to provide funding for the CERP.
Water Shortage Management District Contact: Bruce Adams	Ongoing	On November 29, 2000, the Governing Board declared a major water shortage due to the extended drought. Phase I emergency water shortage orders were issued for the LWC area on this date and on December 8, 2000 for the LEC area. On January 19, 2001, these Phase I restrictions were upgraded to Phase II severe water shortage restrictions. Because of continued drought conditions, on March 28, 2001, the District initiated modified Phase II emergency water shortage restrictions applicable to the LWC and LEC Areas. The drought conditions also affected inland agricultural areas and various water use restrictions were ordered in those areas. Because of favorable water resource conditions, water shortage orders were rescinded on October 11, 2001 for all areas of the District, except for certain portions of Orange County.
Wellhead Protection Programs	As needed	The FDEP has a number of regulations under the Florida Administrative Code that function to regulate hazardous and solid waste, stormwater discharges, storage tank systems, etc. The primary goal of these legislative policies is to prevent problems before they occur, as contrasted to correcting or providing remedial action for preexisting problems. The intent of these ordinances is to protect and safeguard the health, safety, and welfare of the public by providing criteria for regulating and prohibiting the use, handling, production, and storage of certain deleterious substances that may impair present and future public water supply wells and wellfields. The District has and will continue to provide assistance to local governments in the preparation of their wellfield protection ordinances. No wellhead protection activity has occurred since the last update of the DWMP.
Recharge Mapping	As needed	As directed by Chapter 373, F.S., the SFWMD provides ground water recharge information to local governments to assist them with the development and implementation of appropriate water resource policies. In order to accomplish this, the SFWMD undertook a project to map recharge areas within its four planning regions. This effort was completed in 1995. The maps delineate precipitation recharge and leakage rates for all the primary public water supply aquifers utilized throughout South Florida. The District has and will provide assistance to local governments in the delineation of prime recharge areas in order to implement voluntary tax assessment programs (under the Bluebelt Act) that protect the state's prime recharge areas. No recharge mapping was performed since the last update of the DWMP.
		Monitoring and Evaluation
Wetland Criteria Development Support District Contact: Debbie Goss	On scheduled	This activity supports the Regulation Program in developing a scientific basis for wetland protection criteria used in water use and environmental resource permitting. The activity was originated at the direction of the Governing Board and Executive Office of the SFWMD to develop a research and monitoring program to investigate impacts. This information is needed to support rulemaking for the LWC and UEC regions and is a critical element in the implementation of water supply plans for both regions.

Activity	Status	Comments
Lake Okeechobee ASR Pilot Project District Contact: Pete Kwiatkowski	Behind schedule	The Lake Okeechobee ASR Pilot Project Management Plan was approved in March 2001. Test wells have been constructed and hydrogeologic analyses of the wells will be completed in FY 2002.

Part D. Natural Systems Management

The importance of natural systems management at the SFWMD has increased since the 1970s as a result of greater awareness of environmental issues. The land planning and environmental resource protection legislation enacted by the State of Florida over the past 30 years has required the District to place greater emphasis on regional ecosystem management. This portion of the DWMP describes the activities of the SFWMD in meeting the requirements of natural systems management. It is comprised of two core natural systems objectives:

Core Objective NS 1: Maintain the integrity and functions of water resources and related natural systems

Core Objective NS 2: Restore degraded water resources and related natural systems to a naturally functioning condition

Table 4. The FY 2001 Status of the DWMP Natural Systems Management Activities

Activity	Status	Comments
Objective NS 1: Maintain the integrity and functions of water resources and related natural systems		
Planning		
LEC MFLs District Contact: Joel Van Arman	Completed	This project established MFLs for Everglades National Park, the Water Conservation Areas (WCAs), Lake Okeechobee, and the Biscayne aquifer (except that portion of the aquifer located in southern Miami-Dade County). This effort was required by Chapter 373, F.S.
Rain-Driven Schedules for the Everglades District Contact: Murray Miller	On schedule	The objective of this project is to develop rainfall-based delivery plans for the WCAs and the Rotenberger Wildlife Management Area (WMA) as part of the LEC regional water supply planning process. This activity has both water supply and natural systems components. Work plan assessment tools and a rainfall formula are being developed and water supply alternatives are being modeled. Implementation of the plan is targeted for FY 2003.
Indian River Lagoon Restoration Feasibility Study District Contact: David Unsell	Behind schedule	This study was authorized before the CERP and the project implementation report was scheduled for completion before the end of 2001, but it is now expected to be completed in the first half of 2002. This study is on schedule to meet the FY 2002 submittal of the final report to the United States Congress.
Florida Bay MFLs District Contact: Dave Rudnick	On schedule	This activity will determine MFLs for Florida Bay and predict the effects of restoration. This will be accomplished by determining the effects of high salinity on sea grass processes, survival, and production. This will include both the collection of new data and the synthesis of existing information from Florida Bay and other estuaries.
Southwest Florida Feasibility Study District Contact: Janet Starnes	On schedule	The project management plan was completed and approved in July 2001 and a cost-share agreement has been signed. During 2001, the regional modeling tools were developed. Also, the development of both water use demand projections and a regional simulation model for the study area were initiated.
Kissimmee Basin MFL Development District Contact: Joe Koebel	Ongoing	This activity is for the development of MFLs for the Kissimmee Basin. By 2004, MFLs will be developed for the Kissimmee River, Lake Kissimmee, and the Floridan Aquifer. By 2006, MFLs will be developed for the following lakes: Tohopekaliga, Alligator, Jackson, Rosalie, Cypress, Hatchineha, Pierce, Marian, and Fish.
In-Lake Research on Water Level Impacts District Contact: Karl Havens	Ongoing	Research is being conducted to determine operations that will minimize harm to the natural ecosystem of Lake Okeechobee. This research involves controlled experiments to identify how lake stage affects growth and survival of submerged aquatic vegetation.

Activity	Status	Comments
Minimum/Maximum Flow Targets District Contact: Marion Hedgepeth	On schedule	This project is a joint venture between the SFWMD and Palm Beach County Environmental Resources Management. A new hydrodynamic circulation model will be developed. This model will provide a greater understanding of the circulation pattern within the Lake Worth Lagoon. This project would utilize sea grass communities within Lake Worth Lagoon as key indicators of the health and sustainability of ecosystems within the lagoon. A final report is scheduled by the end of June 2002.
Big Cypress Basin Watershed Management Plan District Contact: Ananta Nath	Ongoing	The Big Cypress Basin Watershed Management Plan will provide a road map for development of capital projects for the construction and improvement of the facilities presently operated and maintained by the Big Cypress Board for fulfilling its mission on flood control, water supply, water quality, and natural systems.
Land Acquisition		
Wetlands Mitigation - K-Mart District Contact: Karen Smith	Ongoing	The K-Mart wetlands are to be acquired and restored through payments from permit applicants who contribute funds to the District in lieu of performing mitigation themselves or purchasing credits from a mitigation bank.
General Land Acquisition District Contact: Fred Davis	Ongoing	This activity will monitor District nonspecific land acquisition and disposal projects for other programs throughout the District and for external entities.
Stewardship Save Our Rivers (SOR) Lands District Contact: Fred Davis	Ongoing	SOR stewardship will ensure that SOR lands are managed in a manner that is conducive to the maintenance of the integrity and functions of water resources and related natural systems. The activity includes operations and maintenance, development of public use facilities, and some mitigation.
Wetland Mitigation - Corkscrew Regional Ecosystem Watershed (CREW) District Contact: Marjorie Moore	Ongoing	The CREW project is a SOR partnership project. The CREW Land and Water Trust is a private, not-for-profit organization dedicated to the preservation and stewardship of water resources and natural communities in and around the CREW. The trust coordinates the land acquisition, land management, and public use of the CREW lands. Since the CREW Land and Water Trust was formed in 1989, over 24,000 acres of the 60,000-acre project have been acquired through the District's SOR Program, Lee County, the Big Cypress Basin, the state's Conservation and Recreational Lands (CARL) Program, and mitigation funds. The 60,000-acre project spans Lee and Collier Counties and is the largest undisturbed watershed in southwestern Florida.
Wetlands Mitigation - DuPuis Reserve District Contact: Marjorie Moore	Ongoing	The Dupuis Reserve is a 21,875-acre SOR partnership project located between the J.W. Corbett WMA and Lake Okeechobee. The reserve is actively managed by the District and the Florida Fish and Wildlife Conservation Commission (FWC).
Wetlands Mitigation – Pennsuco District Contact: Marjorie Moore	Ongoing	The Pennsuco Wetlands are being acquired and restored through payments from permit applicants who contribute funds to the District in lieu of performing mitigation themselves or purchasing credits from a mitigation bank.
Wetlands Mitigation - Shingle Creek District Contact: Marjorie Moore	Ongoing	The Shingle Creek wetlands in southern Orange and northern Osceola Counties are being acquired and restored as mitigation for the Orlando Beltway Southern Connection. To date, 1,132 acres of the 7,655-acre project have been acquired.
Wetlands Mitigation - Upper Lakes Basin District Contact: Marjorie Moore	Ongoing	The Upper Lakes Basin wetlands are being managed through payments from permit applicants who contribute funds to the District in lieu of performing mitigation themselves or purchasing credits from a mitigation bank.

Activity	Status	Comments
		Regulation
Environmental Resource Permitting (ERP) District Contact: Terrie Bates	Ongoing	This ongoing activity involves the review of environmental resource permit applications. It includes the following: • Technical engineering and environmental review and evaluation of construction and conceptual plans for proposed development activities • Recommendations for project design changes to ensure proposed activities meet District criteria for flood, water quality, and environmental protection • Negotiations with permit applicants • Field inspections of project sites requesting permits or wetland determinations • Review of wetland mitigation plans • Preparation of requests for additional information • Preparation of technical staff reports • Compliance review of permitted sites • Compliance review of submitted documents required by permit special conditions • Administrative and automation support critical to the ERP Program
Wetland Criteria Development and Support District Contact: Debbie Goss	Ongoing	This activity supports the Regulation Program in developing a scientific basis for wetland protection criteria used in water use and environmental resource permitting. The activity was originated at the direction of the Governing Board and Executive Office to develop a research and monitoring program to investigate impacts to wetlands caused by water table drawdown and to develop specific recommendations for drawdown criteria that prevent significant adverse impacts. This information is needed to support rulemaking for the LWC and UEC planning regions and is a critical element in the implementation of the water supply plans for both regions.
Regulation Model Technology Development/Application District Contact: Debbie Goss	Ongoing	This activity supports the Regulation Program in developing computer applications and technology for use in the water use permitting process.
Environmental Operations Protocol District Contact: Peter Doring	Ongoing	Rules for low-level releases of water from Lake Okeechobee to the St. Lucie and Caloosahatchee Estuaries are being developed through this activity.
		Monitoring and Evaluation
Lake Okeechobee Research and Data Collection District Contact: Karl Havens	Ongoing	This element includes the research- and monitoring-related activities being conducted in Lake Okeechobee and its watershed. This information is then used when projects are planned and implemented to ensure the District's restoration-related activities are based on sound and defensible science. The key activities include in-lake research on the impacts of water level, nutrients, and invasive plants; watershed research on the fate and transport of phosphorus; modeling activities associated with the impacts of phosphorus in the watershed and the lake; BMPs associated with beef cattle operations; and monitoring activities to assess the effectiveness of restoration efforts.
Indian River Lagoon Sea Grass Monitoring District Contact: Becky Robbins	Ongoing	Sea grasses have been identified as a valued ecosystem component for the Indian River Lagoon. This effort will obtain a current inventory of sea grass resources, identify healthy areas that may deserve special protection efforts, and identify potential problem areas that require further investigation.
Objective NS 2: Restore degraded water resources and related natural systems to a naturally functioning condition		
		Planning
Lake Okeechobee SWIM Plan Implementation District Contact: Kim O'Dell	Ongoing	This activity includes work required to insure that the Surface Water Improvement and Management (SWIM) Plan – Update for Lake Okeechobee (SFWMD, 1997) is implemented. The next update will be completed in 2002.
Rain-Driven Schedules for the Everglades District Contact: Murray Miller	On schedule	The objective of this project is to develop rainfall-based delivery plans for the WCAs and the Rotenberger WMA as part of the LEC regional water supply planning process. This activity has both water supply and natural systems components. Work plan assessment tools and a rainfall formula are being developed and water supply alternatives are being modeled. Implementation of the plan is targeted for FY 2003.

Activity	Status	Comments
Establish Ecological and Hydrologic Needs for the Everglades Protection Area District Contact: Fred Sklar	On schedule	The effects of water level, flow, and water quality on key performance measures of sloughs and wet prairies will be determined through this activity. Plant community structure and productivity will be measured and recommendations for the restoration of these communities will be made. RECOVER (Restoration Coordination and Verification) conceptual models will be assessed through measurements of baseline status, history, and development of ridge and slough landscape.
South Miami-Dade County Integrated Water Resource Strategy	Discontinued	This activity was eliminated due to budget constraints.
Biscayne Bay SWIM Plan Update District Contact: Trisha Stone	No action	The last update of the Biscayne Bay SWIM Plan was published in 1995 (SFWMD, 1995). The District participated in the Biscayne Bay Partnership Initiative and received $6 million from the Florida Legislature in 2001 for implementation activities. A $15 million list of projects was submitted to the legislature by the Biscayne Bay Regional Restoration Coordination Team in December 2001.
Land Acquisition		
Kissimmee River Restoration Land Acquisition District Contact: Blair Littlejohn	Ongoing	This activity will enable the District to acquire the approximately 50 property ownerships (fee and flowage easements as applicable) for the Kissimmee River Restoration Project by the specified deadline. This element includes costs for specified infrastructure relocations (e.g., highways).
Public Works Construction		
Western C-4 Structure Critical Project District Contact: Jorge Marban	Revised schedule	Construction began in FY 2001 and is scheduled for compeletion in FY 2002.
Tamiami Trail Culverts (West) Critical Project District Contact: Clarence Tears	Revised schedule	Survey for roadwork design and the draft monitoring plan has been completed. The awarding of the construction contract is scheduled for FY 2002 and construction should be completed in FY 2004.
Lake Trafford Restoration District Contact: Clarence Tears	Revised schedule	Sediment testing for dredging has been completed. Project plans and specifications have been completed. A species protection plan has been completed. Land certification was received. Construction is scheduled to begin in FY 2002 and be completed in FY 2005.
C-111 Project Implementation District Contact: Lisa Smith	On schedule	The C-111 Project consists of both structural and nonstructural modifications to the existing works within the C-111 Basin to promote more natural hydroperiods in Taylor Slough and the eastern panhandle ecosystems of Everglades National Park. Flood protection within the C-111 Basin east of the L-31N and C-111 Canals will be maintained. The land acquisition is 90% complete and the general reevaluation report supplement is under development.
Modified Water Deliveries District Contact: Dave Swift	On schedule	This activity will implement the Modified Water Deliveries Project, which is designed to restore hydrologic balance between western Shark River Slough and northeastern Shark River Slough. This will benefit Everglades National Park flora. The detailed design of the recommended plan has been initiated.
Florida Keys Tidal Restoration District Contact: Dewey Worth	Behind schedule	The Project Delivery Team Kick-Off Meeting was held to initiate the project management plan development process. The draft project management plan has been completed. The project management plan is expected to be completed in FY 2002.
S-356 Structures (Miami-Dade County)	On schedule - not yet started	This activity is part of the Everglades National Park Seepage Management Project. The project is scheduled to begin in FY 2006.
Additional S-345 Structures	On schedule - not yet started	This is part of the WCA-3 Decompartmentalization and Sheetflow Enhancement - Part 2 Project. It is scheduled to begin in FY 2006.
G-404 Pump Station Modifications	On schedule - not yet started	This is part of the Flow to Northwest and Central WCA-3A Project. It is scheduled to begin in FY 2003.

Activity	Status	Comments
Southern Golden Gate Estates Hydrologic Restoration District Contact: Ananta Nath	Revised schedule	The project management plan was was approved in March 2001. A conceptual restoration plan was developed during 2001. The primary components of the restoration plan are land acquisition, construction of pumping stations, canal plugs, road work, ecological and hydrological monitoring, and adaptive management. An ecological and hydrological monitoring program will be initiated to determine the effectiveness of the project, and adaptive management practices will ensure desirable ecological responses. The project implementation report for this project is scheduled for completion in FY 2002.
Lake Worth Lagoon Restoration District Contact: Michael Voich	Revised schedule	This is part of the North Palm Beach County - Part 1 Project. The Project Delivery Team Kick-Off Meeting was held to initiate the project management plan development process. Work is in progress to complete the project management plan in FY 2002. Approval was granted to move forward with work on the L-8 Test Reservoir prior to approval of the project management plan in order to capture and store water for the upcoming dry season and to gather data necessary for the project implementation report.
Kissimmee River Restoration Design	Combined with the project below	
Kissimmee River Restoration Engineering Designs and Implementation District Contact: Paul Whalen	Ongoing	This activity supports the District's participation with the USACE in the analysis and design of project construction elements for meeting flood protection constraints and ecosystem restoration goals for the Kissimmee River Restoration Project.
Operations and Maintenance		
Everglades Exotic Species Control District Contact: Dan Thayer	Ongoing	This activity provides for the elimination and monitoring of exotic plants within the Everglades. The biannual survey showed that melaleuca is decreasing, Australian pine and Brazilian pepper are stable, and lygodium is increasing.
Holey Land WMA Regulation Schedule District Contact: Steve Smith	Revised schedule	This project consists of a modification to the current operating plan for the Holey Land WMA. The project is scheduled to begin in FY 2004.
Rotenberger Regulation Schedule District Contact: Steve Smith	Revised schedule	This project consists of a modification to the current operating plan for the Rotenberger WMA. This project is scheduled to begin in FY 2004.
Lake Okeechobee Exotic Control District Contact: Dan Thayer	Ongoing	This activity is for control of exotics within Lake Okeechobee. Control of melaleuca and torpedo grass, along with other exotic plants, is critical for the preservation and restoration of Lake Okeechobee. If not managed, plants like torpedo grass form dense monocultures, displacing all other plant communities.
Monitoring and Evaluation		
STA/Everglades Nutrient Removal (ENR) Project Optimization, Research, and Modeling District Contact: Jennifer Jorge	On schedule	This activity includes 1) field collection and laboratory analysis of water quality, vegetation, and sediment samples associated with research and monitoring efforts of the ENR Project; 2) development and implementation of the Wetland Water Quality Model; 3) analysis of nutrient removal performance data from other South Florida wetlands; and 4) optimization experiments that will be conducted in the ENR test cells. This work is a part of the District's STA Optimization Research Program. The District is mandated by the Everglades Forever Act to conduct research on optimizing performance of the STAs.
Florida Bay Research - Sea Grass Mortality and Algal Blooms District Contact: Dave Rudnick	On schedule	This research activity will measure the effects changes in timing and the amount of freshwater flow to Florida Bay has on sea grass habitat viability and restoration. This activity will also measure algal bloom response, including spatial extent, persistence, occurrence of harmful blooms, and impacts on other living resources (benthos, sea grasses, and fisheries). This activity will also provide recommendations on water management operations that will achieve the restoration of habitat and water quality within Florida Bay.

Activity	Status	Comments
Florida Bay - Ecological Response to Restoration Activities District Contact: Dave Rudnick	On schedule	This activity supports research studies that will determine the ecological response of Florida Bay to restoration activities. The ecological conditions of the southeastern Everglades will be monitored to determine the effects of changes in water flow and hydroperiod associated with structural and operational changes. Research will also include the measurement of nutrient inputs from the C&SF Project; determination of the nutrient cycle (nutrient transport, transformation, retention, and release) for the wetlands, including the salinity transition zone of Florida Bay; and the determination of the amount of nutrient loading to Florida Bay. In the C-111 Basin and Taylor Slough, plant community composition and productivity and soil accretion or loss will be measured. Spatial and temporal changes in periphyton and water quality conditions in response to hydrologic restoration in the southern Everglades will be monitored.
Kissimmee Basin Restoration and Assessment District Contact: Lou Toth	Ongoing	Research and evaluation data will be used to evaluate the success of the Kissimmee River Restoration Project, fine tune reconstruction phases, and provide for adaptive management of the restored ecosystem. Outputs include publications, technical reports, and presentations. Preconstruction baseline monitoring and evaluation has been completed and post Phase I reconstruction monitoring has been initiated. An independent scientific advisory panel has met to review the baseline information and has provided a peer review. The panel was generally complimentary on the progress to date.
Everglades Food Web/Wading Birds Hydrologic Effect District Contact: Dale Gawlik	Ongoing	This effort will generate a series of scientific publications: 1) analysis of systematic reconnaissance flight wading bird surveys from former contracts and other agencies to determine wading bird distributions and identify depth thresholds that preclude wading birds from feeding successfully; 2) scientific publication examining the amount of movement various species of wading birds exhibit as an indication of how likely they are to be affected by local restoration projects; 3) reports and scientific publications that define fish and aquatic macroinvertebrate populations in the WCAs; 4) scientific publications containing recommendations for water depths and durations that promote the existence of healthy tree islands and associated wildlife; 5) annual reports on the numbers of nesting wading birds in South Florida; and 6) scientific publications of test cell experiments to identify the optimum and minimum water depths necessary for successful foraging. The 2001 *South Florida Wading Bird Report* (Ogden, 2001) has been completed.
Hydrologic Monitoring District Contact: Robb Startzman	Ongoing	Long-term hydrometeorologic data collection, database management, routine data reporting, and data evaluation actvities. Features of these actvities include installation of new sites, maintenence of existing sites, data collection, processing and archiving and maintenence of the environmental corporate database for storage and acess to these data. These data document the operation of the C&SF Project, provide data for the CERP, for Kissimmee River, Everglades, Florida Bay, and Lake Okeechobee restoration, and for water supply planning and implementation.
Monitoring and Evaluation (RECOVER) District Contact: John Ogden	Ongoing	RECOVER is a systemwide program designed to organize the highest quality scientific and technical support during the implementation of the CERP. It links science and the tools of science to a set of systemwide planning, evaluation, and assessment tasks. RECOVER is composed of six interagency, interdisciplinary task teams and a coordinating leadership group. The program management plan for RECOVER was completed in May 2001, and an annual report card will be issued in FY 2002. Also being managed under RECOVER is the approximately $10 million per year authorized in WRDA 2000 for monitoring and assessment. A Systemwide Monitoring and Assessment Plan is being developed and will be completed in FY 2002.
Lake Okeechobee Research and Data Collection District Contact: Karl Havens	Ongoing	This element includes the research- and monitoring-related activities being conducted in Lake Okeechobee and its watershed. This information is then used when projects are planned and implemented to ensure the District's restoration-related activities are based on sound and defensible science. The key activities include in-lake research on the impacts of water level, nutrients, and invasive plants; watershed research on the fate and transport of phosphorus; modeling activities associated with the impacts of phosphorus in the watershed and the lake; BMPs associated with beef cattle operations; and monitoring activities to assess the effectiveness of restoration efforts.